

Fig. 1

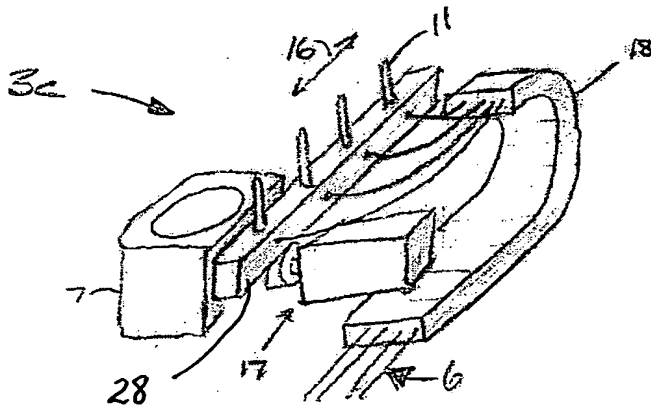


Fig. 4

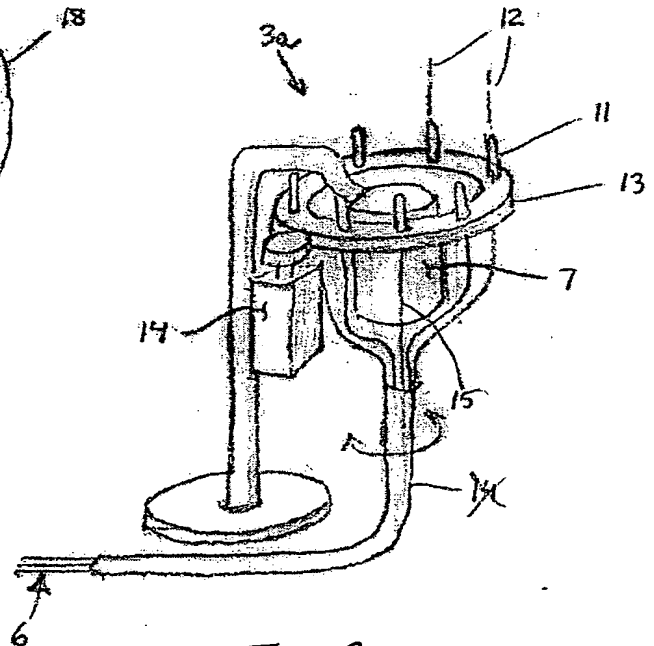


Fig. 2

Process step	Description	Valve state									Docking position	Piston position
		8	52	53	55	32	33	34	44	48		
A	Finished painting green										remote	at bottom
B	Clean piston face and bell cup, index injector	on	on		on		on	on	on		remote	oscillate near bottom
C	Dock with paint supply										docked	at bottom
D	Prime lines with red paint					on		on	on	on	docked	at bottom
E	Fill canister with red paint					on		on		on	docked	retracting
F	Leave dock & clean injector	on	on		on	on	on				near	at top
G	Clean control valve face	on	on	on							remote	at top
H	Paint with red								on / off		remote	dispense

Fig. 9

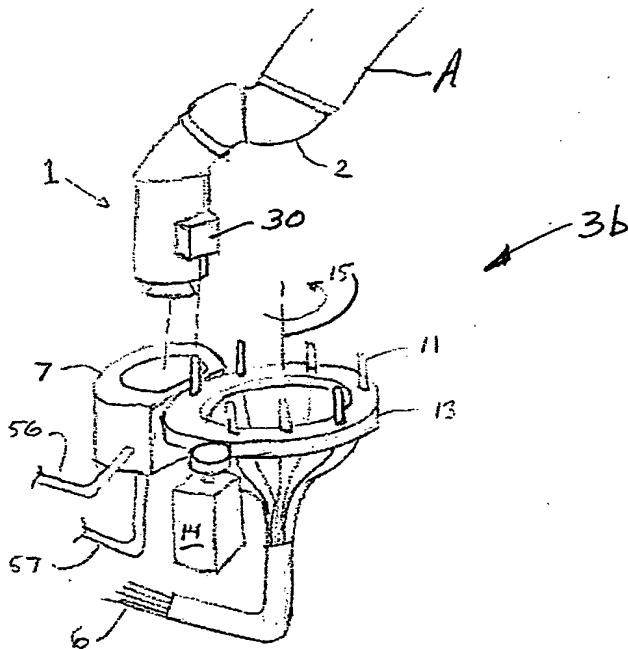


Fig. 3

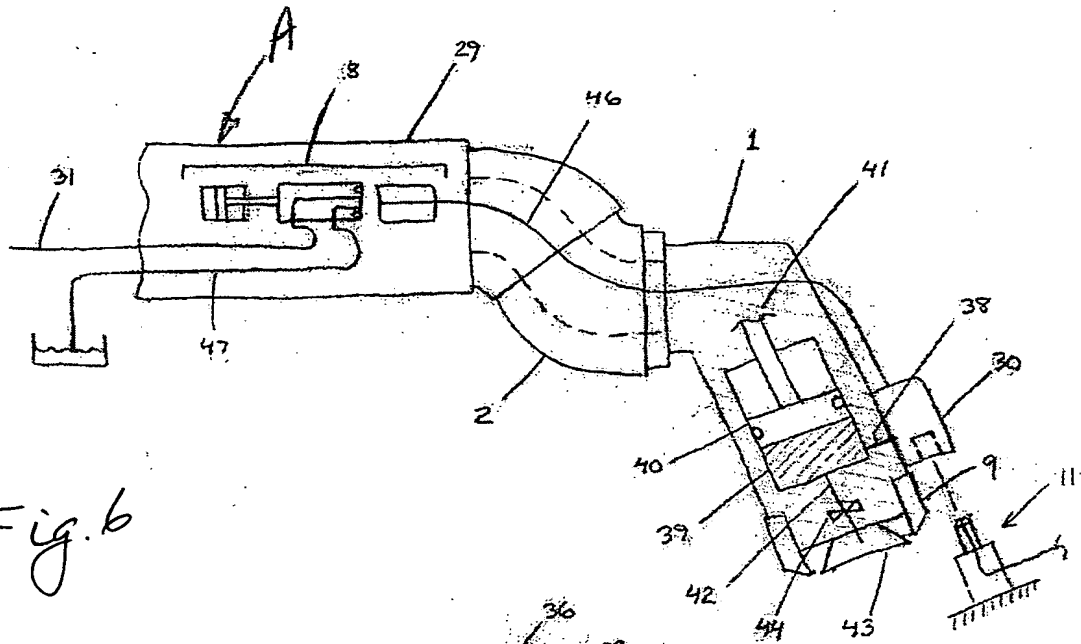


Fig. 6

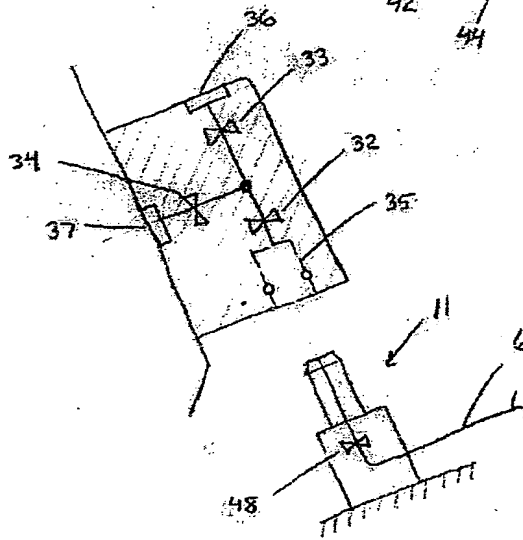


Fig. 5

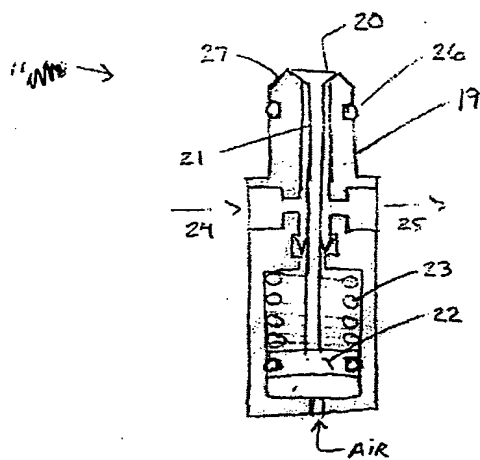


Fig. 7

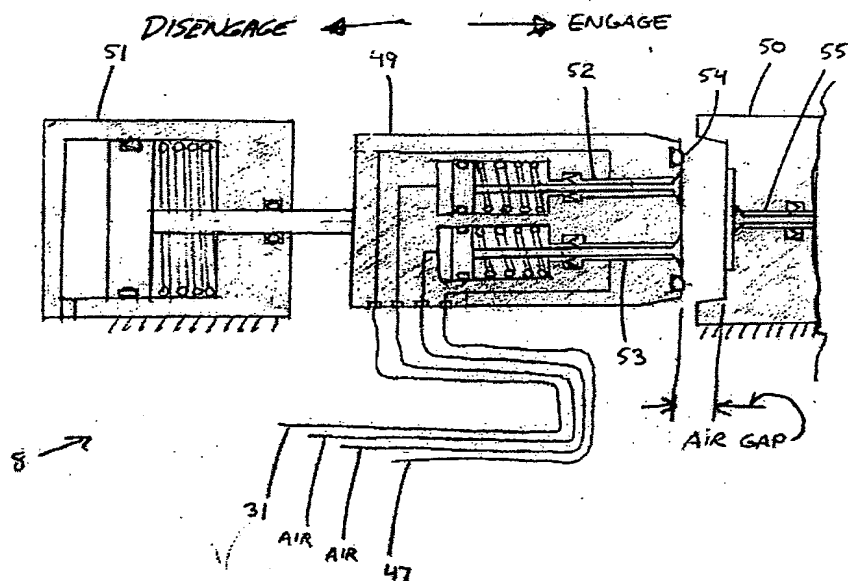


Fig. 8

Fig. 11

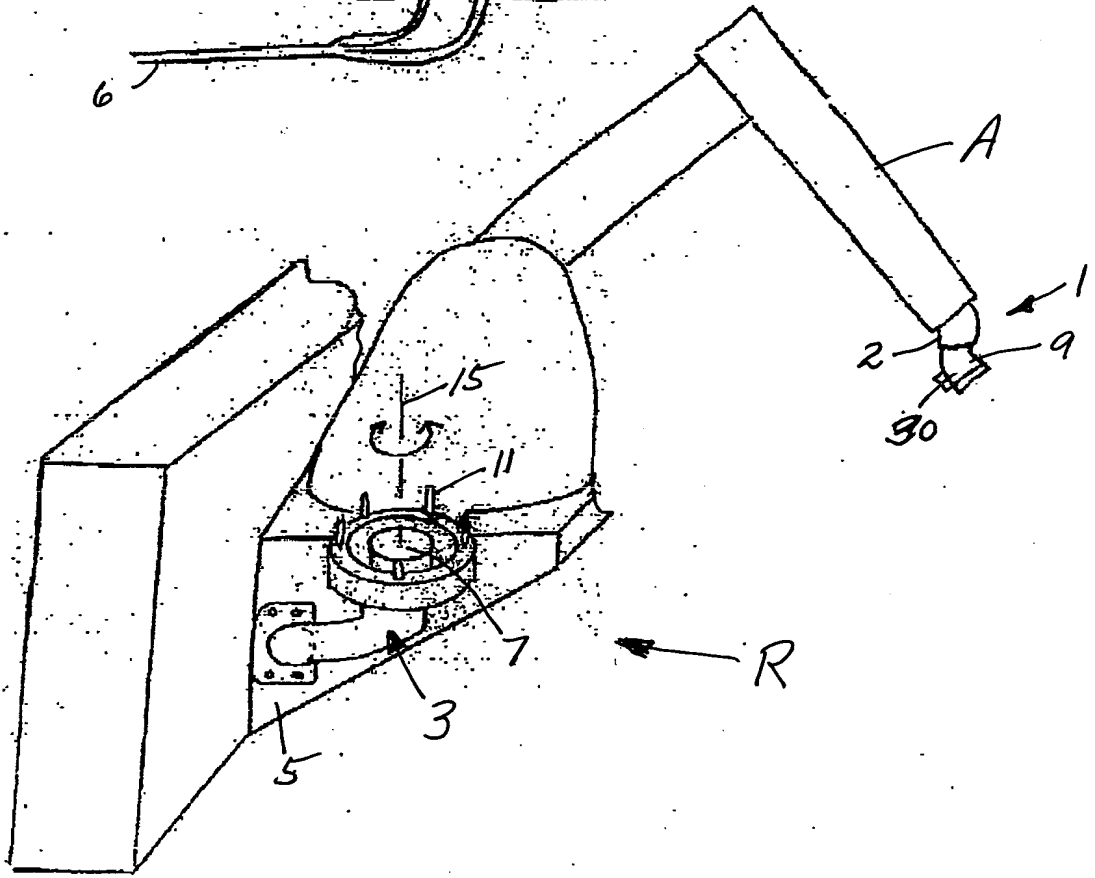
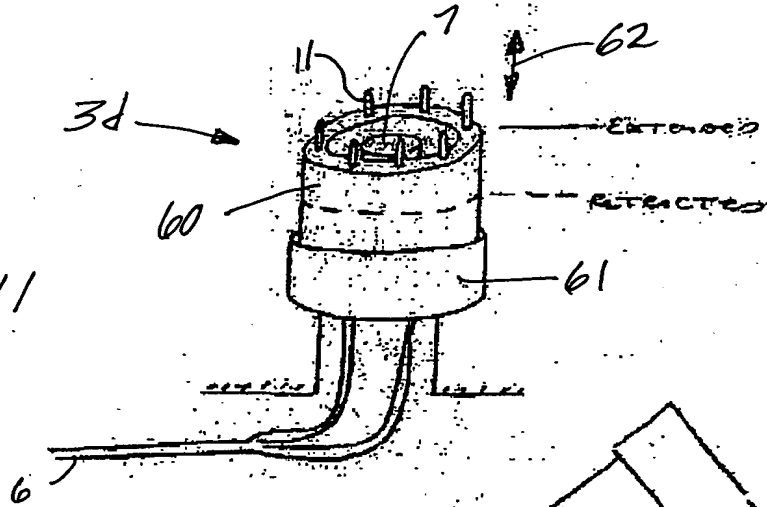
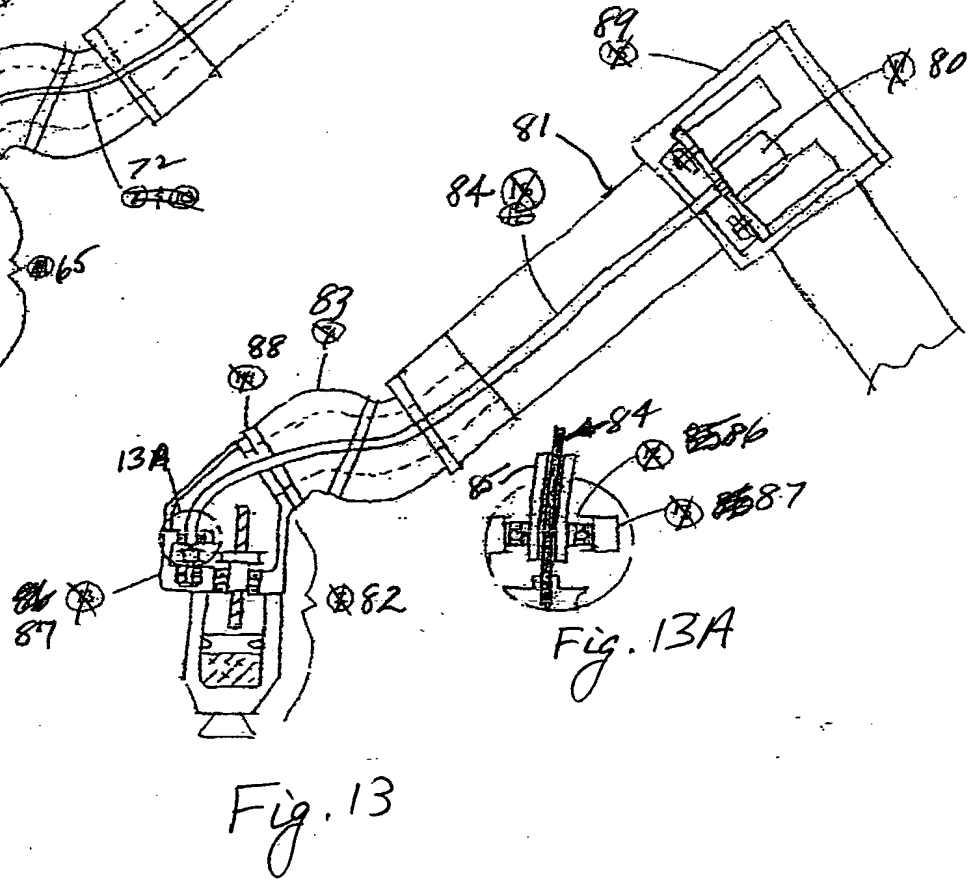
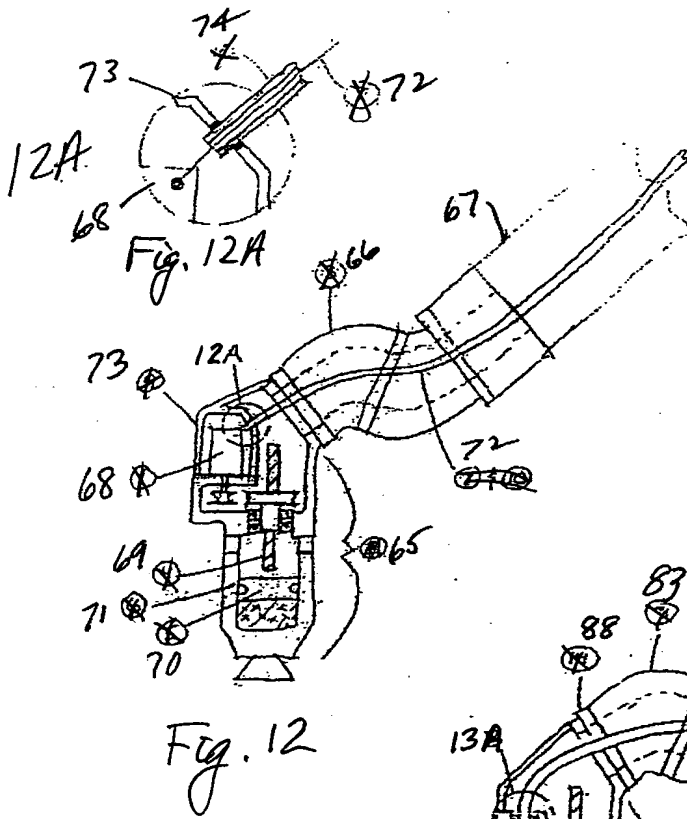


Fig. 10



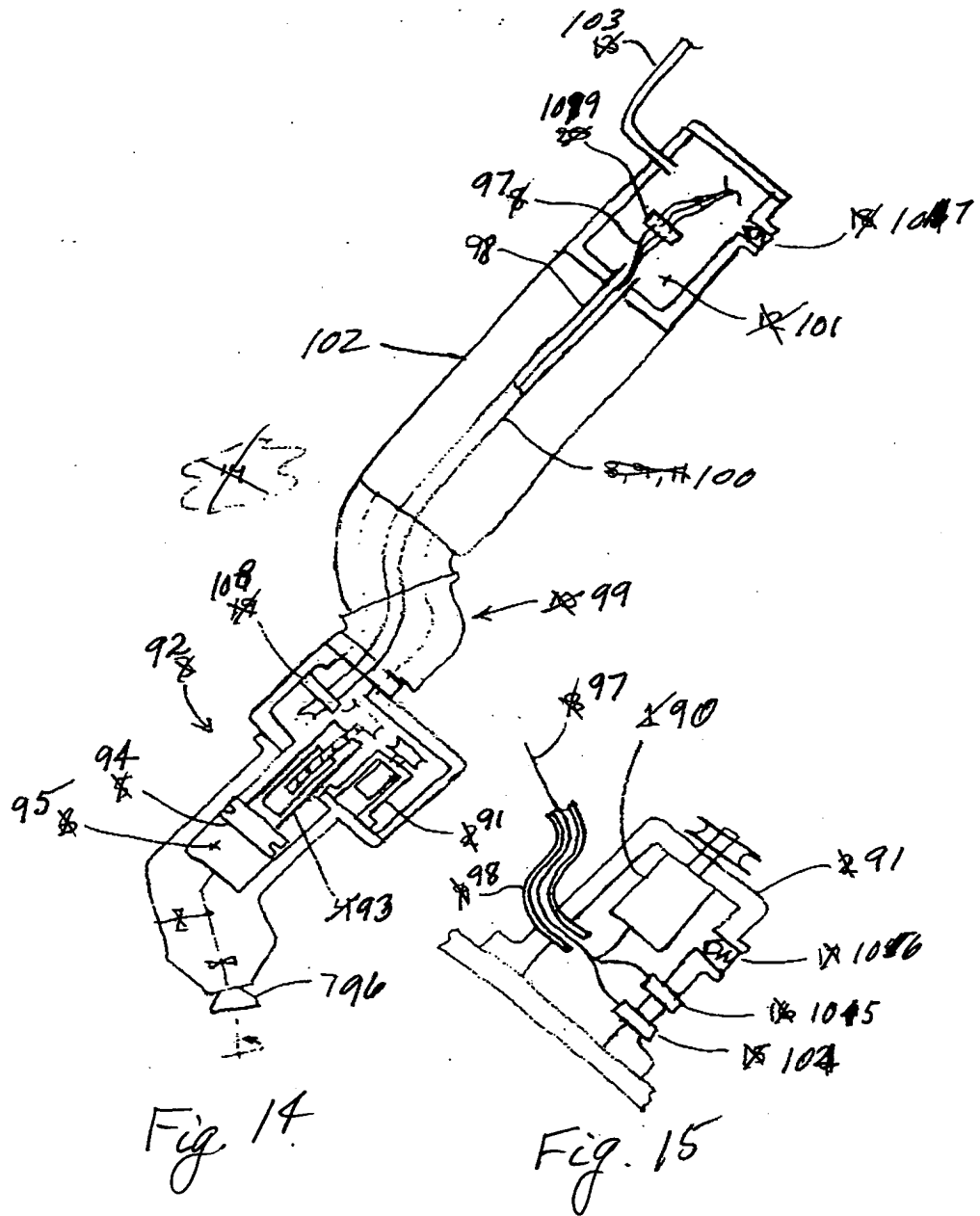


Fig. 17

Process sequence - changing color	Docked	Valve											
		A	B	C	D	E	F	G	H	I	J	K	L
Done painting red	no										on		
Clean piston face & inside bell cup	no	on	on	on						on	on		
Clean outside of bell	yes/no			on									
Index to green supply	yes/no	valve position n/a (can be parallel process)											
Clean shroud	yes	valve position n/a (can be parallel process)											
Prime lines with green	yes	on	on		on		on					on	on
Fill can with green	yes		on		on		on					on	on
Clean & dry docking interface	yes			on	on	on					on		on
Continue drying	no			on	on	on					on		
Paint with green	no	on											

Fig. 18

Process sequence - refilling same color	Docked	Valve											
		A	B	C	D	E	F	G	H	I	J	K	L
Done painting red	no									on	on	on	
Clean inside & outside of bell	yes/no			on						on	on	on	
Clean shroud	yes	valve position n/a (can be parallel process)											
Prime lines with red	yes	on	on		on		on					on	on
Fill can with red	yes		on		on		on					on	on
Clean & dry docking interface	yes			on	on	on					on		
Continue drying	no			on	on	on					on		
Paint with red	no	on											

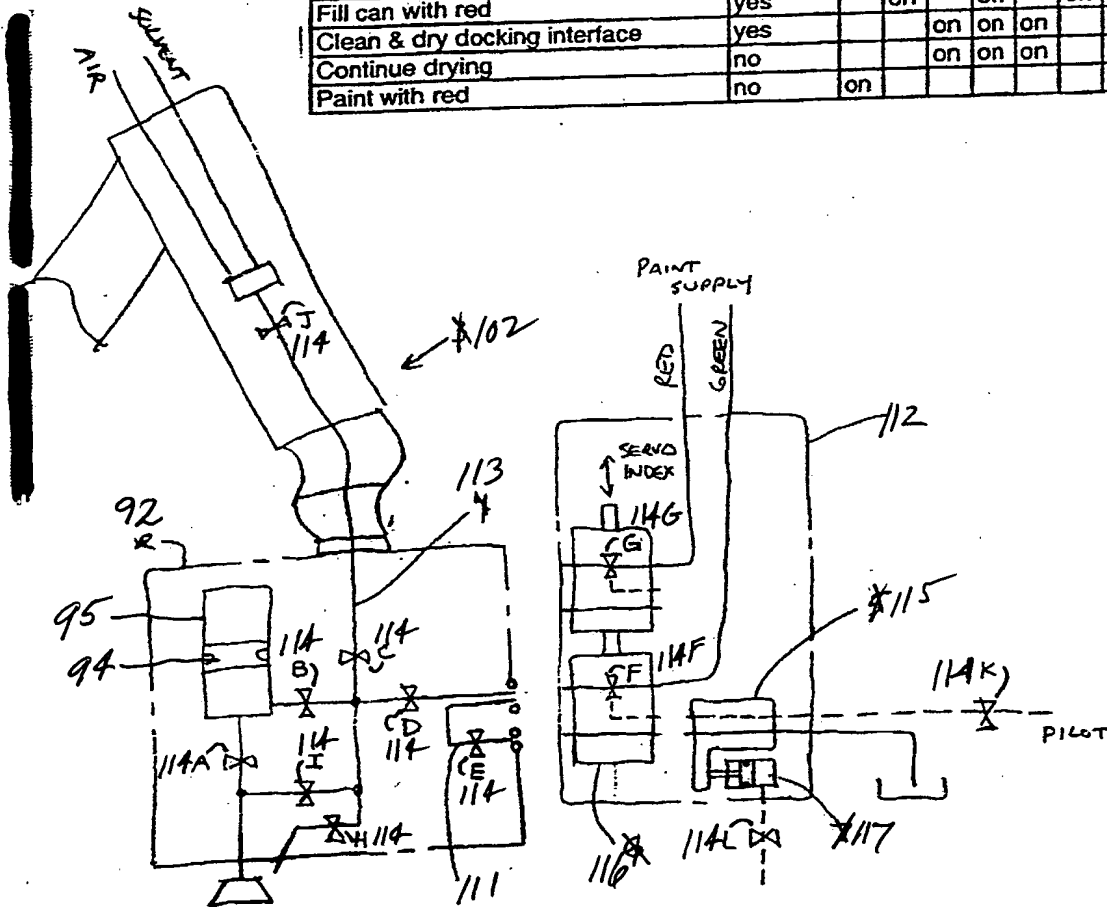


Fig. 16



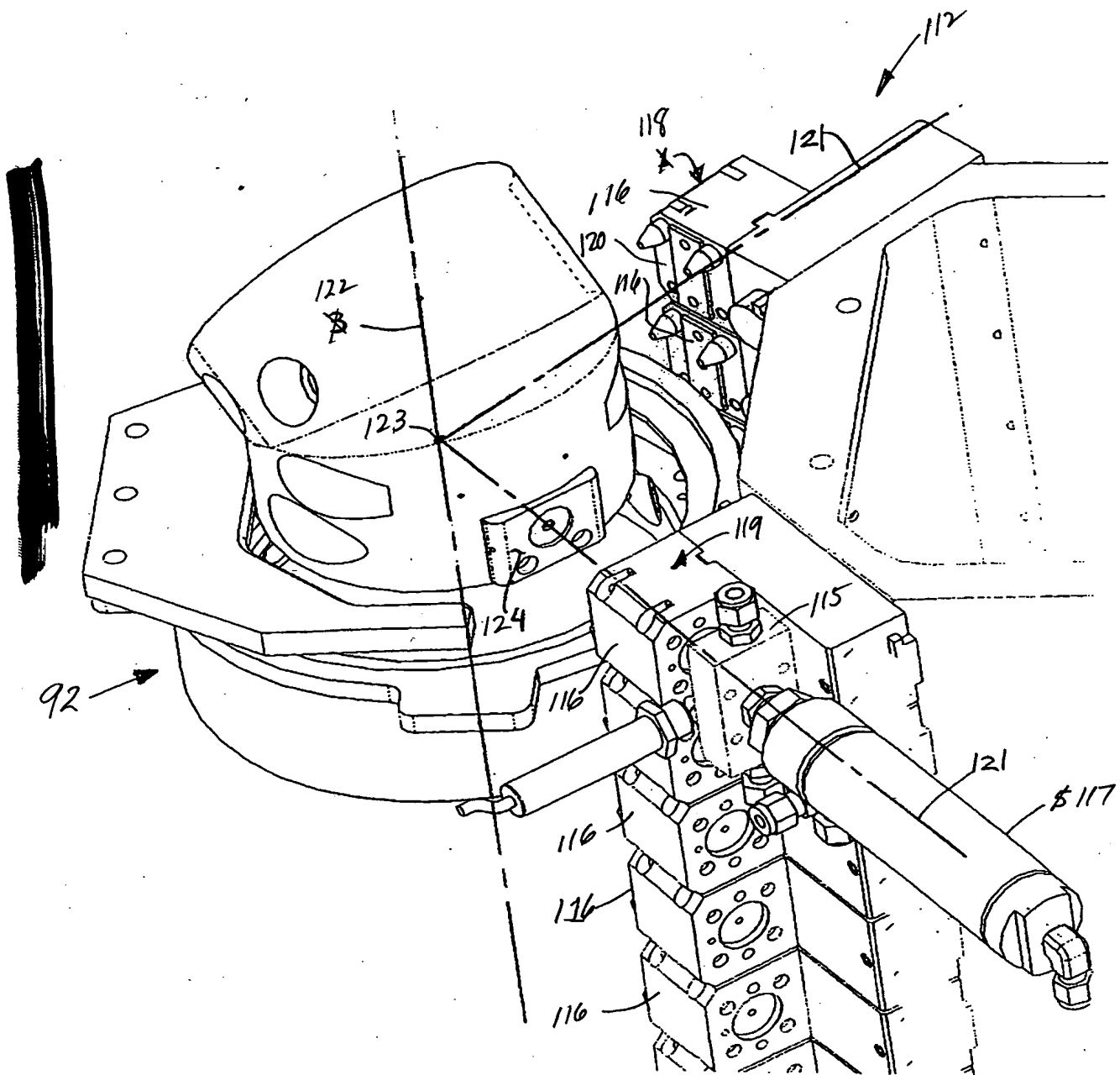


Fig. 19

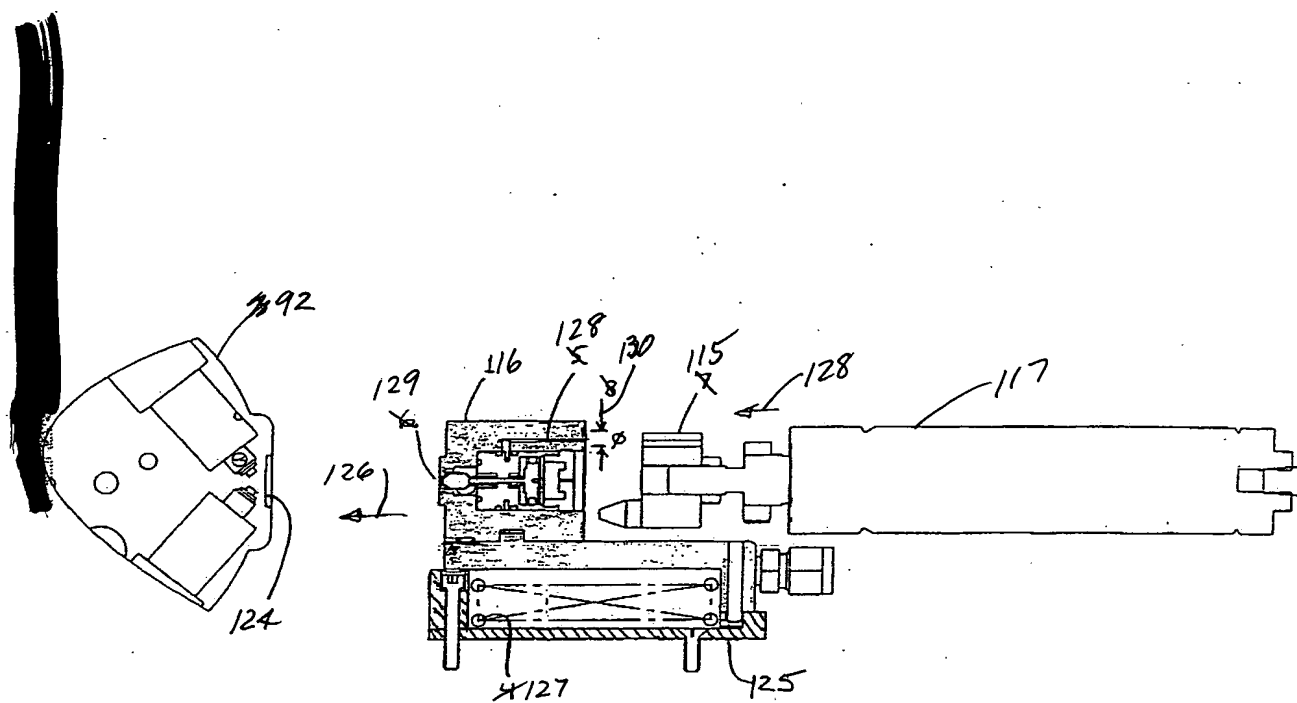


Fig. 20